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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,908	04/15/2004	Jae-Hong Park	P1807USC7	7609

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EXAMINER	
FOX, BRYAN J	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/824,908	PARK ET AL.	
	Examiner	Art Unit	
	Bryan J. Fox	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *See Continuation Sheet* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *250-254,257-265,268-275,277-279,282-290,293-303,306-314 and 317-322* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 250-254,257-265,268-275,277-279,282-290,293-303,306-314 and 317-322.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 23, 2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 250-254, 258, 259, 262-265, 269, 270, 274-279, 287-290, 294, 295, 299-303, 307, 308, 311-314, 318 and 319, are rejected under 35 U.S.C. 103(a) as being unpatentable over Korpela in view of Lupien.

Regarding claims 250, 262, 287, 299 and 311, Korpela discloses a method and an apparatus for interfacing among a terminal (10), a radio network (20a-20c) and a core network (30a-30c), connected to the radio network, the method comprising: recognizing an operating type of the core network on the basis of a message comprising an information element identifying the operating type of the core network (radio access network transmits signals (indicated in FIG. 8) see col. 6, lines 14-24), to thereby allow the terminal to operate according to the recognized operating type of the core network (see Fig. 9, steps 1202-1206, col. 6, lines 29-41). Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)), but fails to explicitly teach wherein the operating type information includes an ANSI-41 information representing a synchronous operating type core network or a GSM-MAP information representing an asynchronous operating type core network.

Lupien discloses an integrated radio communication network, which integrates an ANSI-41 circuit switched network and a GPRS packet data network (see title, abstract), wherein the amount of integration is kept as low as possible by maintaining the integrity of each network function and node on both the GPRS side of the interface and the ANSI-41 side (see col. 4, lines 42-63, col. 16, lines 35-51), and includes an ANSI-41 core network (see col. 12, lines 3-21).

It would therefore have been obvious to one of ordinary skill in the art to implement Korpela's multiple protocol communication system wherein a core network

operates according to ANSI-41 protocols in order to allow mobile subscribers to access both voice/circuit switched and packet switched services in a flexible manner as taught by Lupien.

Regarding claims 251, 263, and 275, Korpela further discloses that after recognizing, storing the recognized operating type of the core network (see col. 6, lines29-50).

Regarding claims 252, 264, 289, 301, and 313, Korpela further discloses receiving the message through a predetermined channel (mobile terminal receives broadcast signals as transmitted on the broadcast channel, col. 6, lines 14-41 and col. 2, line 66 to col. 3, line 5), extracting core network operating type information from the received message, and setting an operating type of the terminal on the basis of the recognized operating type of the core network (see col. 6, lines 30-51).

Regarding claims 253, 277, 278, 302, Korpela teaches the capability of operating in different modes such as voice (synchronous) or data communication (asynchronous), see col. 3, line 66 to col. 4, line 8), but fails to specifically teach wherein the predetermined channel is a synchronous channel as well as the use of a synchronous channel message. However, since Korpela teaches synchronous transmission capability, those of ordinary skill in the art would have appreciated being able to use the synchronous channel to convey information on the core network type in order to ensure the proper protocol adaptation for a desired communication. Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information

including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)), but fails to explicitly teach wherein the operating type information includes an ANSI-41 information representing a synchronous operating type core network or a GSM-MAP information representing an asynchronous operating type core network.

Lupien discloses an integrated radio communication network, which integrates an ANSI-41 circuit switched network and a GPRS packet data network (see title, abstract), wherein the amount of integration is kept as low as possible by maintaining the integrity of each network function and node on both the GPRS side of the interface and the ANSI-41 side (see col. 4, lines 42-63, col. 16, lines 35-51), and includes an ANSI-41 core network (see col. 12, lines 3-21).

It would therefore have been obvious to one of ordinary skill in the art to implement Korpela's multiple protocol communication system wherein a core network operates according to ANSI-41 protocols in order to allow mobile subscribers to access both voice/circuit switched and packet switched services in a flexible manner as taught by Lupien.

Regarding claims 254 and 279, Korpela further discloses wherein the predetermined channel is a broadcast control channel (use of broadcast access channel to transmit signals, including backbone network type code, see col. 6, lines 14-24).

Regarding claims 258, 259, 269, 270, 283, 284, 294, 295, 307, 308, 318 and 319, Korpela's teaching as illustrated in Figs. 8 and 9 shows the message including a master information block and system information message (see col. 6, lines 14-41).

Regarding claims 265, 290 and 314, Korpela further discloses teaches the capability of operating in different modes such as voice (synchronous) or data communication (asynchronous), see col. 3, line 66 to col. 4, line 8), and using of broadcast access channel to transmit signals, including backbone network type code, (see col. 6, lines 14-24), but fails to explicitly teach that the predetermined channel is a synchronization channel if the radio network is synchronous and the predetermined channel is a broadcast control channel if the radio network is of the asynchronous operating type.

However, since Korpela teaches synchronous transmission capability and asynchronous transmission type, those of ordinary skill in the art would have appreciated being able to use the synchronous channel and the broadcast control channel to convey information on the appropriate core network type in order to ensure the proper protocol adaptation for a desired communication. Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)), but fails to explicitly teach wherein the operating type information includes an ANSI-41 information representing a synchronous operating type core network or a GSM-MAP information representing an asynchronous operating type core network.

Lupien discloses an integrated radio communication network, which integrates an ANSI-41 circuit switched network and a GPRS packet data network (see title, abstract),

wherein the amount of integration is kept as low as possible by maintaining the integrity of each network function and node on both the GPRS side of the interface and the ANSI-41 side (see col. 4, lines 42-63, col. 16, lines 35-51), and includes an ANSI-41 core network (see col. 12, lines 3-21).

It would therefore have been obvious to one of ordinary skill in the art to implement Korpela's multiple protocol communication system wherein a core network operates according to ANSI-41 protocols in order to allow mobile subscribers to access both voice/circuit switched and packet switched services in a flexible manner as taught by Lupien.

Regarding claim 274, Korpela discloses a method and an apparatus for interfacing among a terminal (10), a radio network (20a-20c) and a core network (30a-30c), connected to the radio network, the method comprising: recognizing an operating type of the core network on the basis of a message comprising an information element identifying the operating type of the core network (radio access network transmits signals (indicated in FIG. 8) see col. 6, lines, 14-24), to thereby allow the terminal to operate according to the recognized operating type of the core network (see Fig. 9, steps 1202-1206, col. 6, lines 29-41), wherein the step includes: receiving the message in a predetermined location through a predetermined channel (signals transmitted on a broadcast channel, mobile terminal receives such broadcast signals, column 6, lines 15-46 and figure 9), extracting core network operating type information from the received message (mobile terminal detects the network type code, see column 6, lines 15-45 and figure 9), and setting an operating type of the terminal on the basis of the recognized

operating type of the core network (mobile terminal registers on the network, see column 6, line 66 – column 7, line 5 and figure 12). Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)), but fails to explicitly teach wherein the operating type information includes an ANSI-41 information representing a synchronous operating type core network or a GSM-MAP information representing an asynchronous operating type core network.

Lupien discloses an integrated radio communication network, which integrates an ANSI-41 circuit switched network and a GPRS packet data network (see title, abstract), wherein the amount of integration is kept as low as possible by maintaining the integrity of each network function and node on both the GPRS side of the interface and the ANSI-41 side (see col. 4, lines 42-63, col. 16, lines 35-51), and includes an ANSI-41 core network (see col. 12, lines 3-21).

It would therefore have been obvious to one of ordinary skill in the art to implement Korpela's multiple protocol communication system wherein a core network operates according to ANSI-41 protocols in order to allow mobile subscribers to access both voice/circuit switched and packet switched services in a flexible manner as taught by Lupien.

Regarding claims 279 and 303, Korpela further discloses wherein the predetermined channel is a broadcast control channel (use of broadcast access channel to transmit signals, including backbone network type code, see col. 6, lines 14-24).

Regarding claims 288, 300 and 312, Korpela further discloses that after recognizing, storing the recognized operating type of the core network (see col. 6, lines 29-50).

Claims 257, 268, 282, 293, 306, 317 and 321, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Korpela** in view of **Lupien**, as applied to claims 250, 262, 274, 287, 299 and 311 above, and further in view of **Martinez (6,137,806).**

Regarding claims 257, 268, 282, 293, 306, and 317, Korpela further discloses a GSM backbone network protocol including GSM mobility management (see col. 5, lines 39-57), and Korpela further discloses the core network operating type information including GSM-MAP information (feature of GSM networks, (GSM evolutionary networks, col. 2, lines 38-40)) but fails to explicitly teach wherein the operating type of the core network comprises GSM-MAP and ANSI-41

Martinez discloses an intelligent which comprises two interconnected areas served by network switching points in which different kinds of TCAP messages such as IS-41 MAP and GSM-MAP for messages from mobiles could be generated or received (see Fig.2, col. 5, lines 41—63).

It would therefore have been obvious to one to include the capability of GSM-MAP as well as ANSI-41 messaging in Korpela's system as taught by Martinez in order to ensure the use of appropriate message signaling protocols for routing voice or data as desired.

Regarding claims 297 and 321, Korpela further discloses including a network identifying portion (similar to the PLMN code broadcast in GSM), indicating the identity of each backbone network to which the radio access network is connected (see col. 6, lines 18-28), while Martinez teaches the use of TCAP messages such as IS-41 MAP and GSM-MAP for messages from mobiles could be generated or received (see Fig.2, col. 5, lines 41—63), but the combination of Korpela and Martinez do not specifically show including a PLMN ID if the radio network is of the asynchronous operating type and the core network operating type information is a GSM information representing an asynchronous type core network.

However, since Korpela shows including a network ID portion and Martinez teaches using GSM-MAP information, it would have been obvious to one of ordinary skill in the art to ensure the inclusion of the appropriate network identification in the combination of Korpela as modified by Martinez in order to ensure the use of appropriate message signaling protocols for routing voice or data as desired.

Claims 260, 261, 271, 273, 285, 286, 296, 298, 309, 310, 320 and 322 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korpela in view of Lupien as applied to claims 250, 262, 274, 289, 301 and 311 above, and further in view of 3GPP **TS 25.331 V3.0.0 (1999-10)**, hereinafter referred to as (the Specification).

Regarding claims 260, 261, 271, 273, 285, 286, 296, 298, 309, 310, 320 and 322, Korpela fails to explicitly disclose wherein the message is represented by a table as set forth in the claims.

The Specification teaches the use of broadcast of system information to broadcast system information elements that are of the same nature in a system information block (see page 24, paragraphs 8.1.1.1-8.1.1.1.2) and the system information messages contains elements as set forth in the table representing the message (see page 148-163).

It would therefore have been obvious to one of ordinary skill in the art to provide for the use of system information block or master information messages to identify core networks available for call connections as taught by the Specification in order to standardize and effectively ensure connection parameters being available for desired communications.

Claims 272, 297 and 321 are rejected under 35 U.S.C. 103(a) as being unpatentable over Korpela in view of the Specification as applied to claims 271, 296 and 311 above, and further in view of Martinez.

Regarding claims 272, 297 and 321, the combination of Korpela and The Specification further discloses including a network identifying portion (similar to the PLMN code broadcast in GSM), indicating the identity of each backbone network to which the radio access network is connected (see col. 6, lines 18-28), while Martinez teaches the use of TCAP messages such as IS-41 MAP and GSM-MAP for messages from mobiles could be generated or received (see Fig.2, col. 5, lines 41—63), but the combination of Korpela and Martinez do not specifically show including a PLMN ID if the radio network is asynchronous and the core network operating type is GSM.

However, since Korpela shows including a network ID portion and Martinez teaches using GSM-MAP information, it would have been obvious to one of ordinary skill in the art to ensure the inclusion of the appropriate network identification in the combination of Korpela as modified by Martinez in order to ensure the use of appropriate message signaling protocols for routing voice or data as desired.

Response to Arguments

Applicant's arguments with respect to claims 250-254, 257-265, 268-275, 277-279, 282-290, 293-303, 306-314 and 317-322 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J. Fox whose telephone number is (571) 272-7908. The examiner can normally be reached on Monday through Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles N. Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bryan Fox
July 18, 2007

CHARLES N. APPIAH
SUPERVISORY PATENT EXAMINER